

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Reallocation of the 216-220 MHz,)	WT Docket No. 02-08
1390-1395 MHz, 1427-1429 MHz,)	RM-9267
1429-1432 MHz, 1432-1435 MHz,)	RM-9692
1670-1675 MHz, and 2385-2390 MHz)	RM-9797
Government Transfer Bands)	RM-9854
)	RM-9882

COMMENTS OF ITRON, INC.

Itron, Inc. ("Itron"), by its attorneys, hereby comments on the Notice of Proposed Rulemaking in the above-referenced proceeding.¹ In the *NPRM*, the Commission has asked for comment regarding various proposed service rules for licensing a total of 27 megahertz of spectrum recently transferred from Government to non-Government use.

Itron manufactures automated meter reading equipment for utilities and holds a nationwide license for operations in the 1427-1432 MHz band.² Consistent with these interests, Itron's comments in this proceeding are limited to the Commission's proposals regarding the telemetry bands.

Itron agrees with the Commission's tentative conclusions regarding the 1427-1432 MHz band and generally supports the Commission's proposed service rules for the band. Where the Commission has requested comment as to what technical standards should apply, Itron suggests that the Commission adopt the standards set forth in the band plan submitted previously by Itron and the American Hospital

¹ See Reallocation of the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Band Transfer Bands, *Notice of Proposed Rulemaking*, WT Docket No. 02-08 (rel. Feb. 6, 2002) [hereinafter the "*NPRM*"].

² See File No. 94011151777 (1994) (granting Itron national authority to operate across 1427-1432 MHz band); File No. 0187-EX-RR-1999 (1999) (renewing Itron authority).

Association Task Force on Medical Telemetry (“AHA”).³ In order to implement that band plan fully and provide adequate protection for Wireless Medical Telemetry Service (“WMTS”) stations, moreover, Itron urges the Commission to limit non-WMTS telemetry operations in the 1427-1432 MHz band to utility telemetry.

I. Limit Telemetry in the 1.4 GHz Band To Utility Telemetry

In the NPRM, the Commission has sought comment on what restrictions should be placed on secondary telemetry at 1427-1429.5 MHz and primary telemetry at 1429.5-1432 MHz to protect WMTS from harmful interference. The Commission has advanced three possibilities: (1) restricting telemetry operations to utility telemetry; (2) restricting telemetry operations to fixed telemetry; and (3) limiting the authorized power levels for telemetry frequencies as they approach the adjacent WMTS primary-band.⁴

Itron supports the first and third of these possibilities, which would limit telemetry operations to utility telemetry and require operations at lower power on frequencies closer to the WMTS band. In the *Joint Proposal*, AHA identified utility telemetry as its preferred service in the adjacent band, believing that this form of telemetry alone is wholly compatible with WMTS operations.⁵ Itron and AHA have worked closely to ensure that utility telemetry equipment deployed in the 1429.5-1432 MHz band will be compatible with adjacent WMTS operations. The same cannot be said of non-utility telemetry equipment; therefore, AHA has made clear that the 1429.5-1432 MHz band should be limited to utility telemetry to protect WMTS.

³ See Joint Statement of Position by the American Hospital Association Task Force on Medical Telemetry and Itron, Inc. [hereinafter the “*Joint Proposal*”], attached to Comments of Itron, Inc., ET Docket No. 00-221 (filed Mar. 8, 2001) [hereinafter “*Itron Comments*”], and attached hereto as Exhibit A. Some terms of the *Joint Proposal* were modified by later *ex parte* submissions to the Commission. See, e.g., AHA *Ex Parte* Comments (filed Nov. 2, 2001), attached hereto as Exhibit B (altering the enumerated areas covered by the proposed band flip) [hereinafter “*AHA November Ex Parte*”]; AHA *Ex Parte* Comments (filed Dec. 19, 2001), attached hereto as Exhibit C (adopting power limits for mobile devices) [hereinafter “*AHA December Ex Parte*”].

⁴ See NPRM at ¶56.

⁵ See *Joint Proposal* at 1.

In addition to serving the substantial public interest goal of fully protecting WMTS, such a limitation would advance the public interest in significant other ways. For example, utility telemetry is better suited than other forms of telemetry to co-exist with federal government users and radio astronomy monitoring stations in adjacent bands.⁶ In fact, utility telemetry systems in the 1427-1432 MHz band have co-existed with the federal government and radio astronomy for years without incident.

A grant of dedicated spectrum to utility telemetry also will benefit the nation's critical infrastructure. In a recent study, the National Telecommunications and Information Administration found that utilities need separate and protected spectrum for critical infrastructure industry purposes.⁷ By providing real time information in times of power outages and emergencies, utility telemetry plays a vital infrastructure role.

Itron also supports the proposal to limit the authorized power levels for telemetry frequencies as they approach the adjacent WMTS band (proposal 3). These power limits are an integral element of the band plan that AHA and Itron have developed, and are needed to prevent interference to WMTS stations in the adjacent band.⁸

As discussed below in Section II.H, once the allocation for 1429.5-1432 MHz is limited to utility telemetry and power limits are imposed for frequencies that are closer to the WMTS band (proposals 1 and 3), there is no need to restrict telemetry operations to fixed telemetry (proposal 2). Rather, utility telemetry licensees should be given

⁶ See *Itron Comments* at 6.

⁷ See Marshall W. Ross & Jeng F. Mao, "Current and Future Spectrum Use by the Energy, Water, and Railroad Industries: Response to Title II of the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 2001 Public Law 106-553," U.S. Department of Commerce, National Telecommunications and Information Administration (Jan. 30, 2002).

⁸ See *Joint Proposal* at 4.

mobile authority as an adjunct to their fixed operations, subject to power limits that AHA and Itron have proposed to protect WMTS.

The Commission asks whether a utility telemetry allocation would displace the seven incumbent non-utility licensees in the 1427-1432 MHz band.⁹ Itron does not believe that the Commission's determination to limit telemetry to utility telemetry should require the other operators in the band to have to be relocated. Rather, and as discussed below in relation to secondary licensees, Itron supports the grandfathering of these non-utility licensees as secondary users in the 1427-1432 MHz band.

II. Licensing

A. *Site-by-Site Licensing*

Itron supports the Commission's preliminary determination that it "should continue to license secondary telemetry in the 217-220 MHz and 1427-1429.5 MHz bands on a site-by-site basis."¹⁰ As the Commission points out, the secondary status of telemetry in this band requires operators to avoid interference with primary operators, such as WMTS licensees. Therefore, geographic area licensing would be unworkable.

Itron also supports the Commission's tentative conclusion that primary telemetry licensing in the 1429.5-1432 MHz band should be handled on a site-by-site basis.¹¹ Itron agrees that employing site licenses rather than geographic licensing "will provide greater assurance for protection of WMTS."¹² For the same reason, the Commission should implement site-by-site licensing for primary telemetry stations in the 1427-1429.5 MHz band in the so-called "flip" areas (*see* Section II.D.2 below). In order to facilitate incumbent utility telemetry operations, Itron and the AHA have proposed that in these

⁹ *See NPRM* at ¶57.

¹⁰ *Id.* at ¶59.

¹¹ *See id.* at ¶61.

¹² *Id.* at ¶60.

areas the Commission allocate the 1427-1429.5 MHz band on a primary basis to utility telemetry, and the 1427.5-1429 MHz band on a primary basis to WMTS.¹³

B. Authorized Service Areas

In the *NPRM*, the Commission has asked for guidance as to how to define a service area for licensing purposes.¹⁴ Itron believes that assignments should be made by employing a mileage separation standard and agrees with the Commission that 70 miles (113 km) is the appropriate distance for this purpose.¹⁵

In defining service areas, the Commission should make clear that a “site” license does not limit a licensee to operating a single station at a single site. Such a limitation would be overly restrictive and deprive licensees of the flexibility they need. For example, in some markets, a utility may have tens of thousands of telecommand stations situated on utility poles communicating with hundreds of thousands of meter modules located at customers’ homes. Each pole or each home should not have to be licensed individually. Rather, a license should authorize operations on all of the stations located within a service area, the contours of which are demarcated by the mileage separation standard.

The Commission also has asked in the *NPRM* whether “topography issues, technology/power issues, etc.” should factor into the computation of an appropriate service area.¹⁶ Itron submits that a 70 mile separation distance should be the presumptive limit, but that applicants should be permitted to negotiate short-spacing agreements with licensees that are less than 70 miles away, as MAS applicants and licensees are able to do at present.

¹³ See *Joint Proposal*.

¹⁴ See *NPRM* at ¶60.

¹⁵ See *id.*

¹⁶ *Id.*

Absent a short-spacing agreement, applicants seeking to depart from the 70 mile standard should be required to make a showing such as that required under Section 90.621(b)(4) of the Commission's Rules. This provision provides that an applicant must "be required to secure a waiver and must submit with the application [] an interference analysis, based upon any of the generally-accepted terrain-based propagation models, that shows that co-channel stations would receive the same or greater protection" as they would from a fully-spaced station.¹⁷ In addition, the Commission should require applicants for short-spaced licenses to give notice to the co-channel licensees with whom they would be short-spaced, and to provide the licensees with an opportunity to object.¹⁸

C. Assignment Of Frequencies

Itiron supports the Commission's proposal in the *NPRM* to grant applications in the 1427-1432 MHz band on a first-come, first-served basis.¹⁹ As the Commission observed, the first-come, first-served regime has worked well in other site-by-site contexts.²⁰ It is preferable to the window or cut-off approach, because it is more expeditious. The opening and closing of multiple windows or cut-off periods and the resolution of associated challenges can delay the grant of licenses for months or years. In addition, a first-come, first-served system is easier for the Commission to administer and, therefore, more efficient.²¹

¹⁷ 47 U.S.C. § 90.621(b)(4).

¹⁸ *See id.*

¹⁹ *See NPRM at* ¶59.

²⁰ *See id.*

²¹ On rare occasions, mutually exclusive applications may be filed at the same time in a first come, first served regime. In these circumstances, the Commission's competitive bidding procedures can be employed.

D. Treatment of Incumbents

1. Grandfathering

The Commission has asked for comment regarding how it should treat incumbents presently operating on a secondary basis in the 1429.5-1432 MHz band.²² Itron believes that these incumbents should be permitted to continue operating as secondary users following the adoption of service rules for the band. If a secondary incumbent user wishes to upgrade to primary status, it should have to follow the same application procedures as new applicants (*e.g.*, first-come, first-served site licensing).²³

2. Band flip areas

Itron appreciates the Commission's support for the "band flip" aspect of the *Joint Proposal*. Under this proposal, the primary and secondary allocations for WMTS and telemetry would be reversed in a few metropolitan areas in which utilities presently are operating telemetry systems in the lower portion of the 1427-1432 MHz band.²⁴ As the Commission recognizes, without a band flip either the investment already made in utility telemetry equipment in the lower portion of the band would have to be sacrificed or WMTS would not be able to operate on a nationwide basis.²⁵ The band flip eliminates the necessity for choosing between these evils.

²² See *NRPM* at ¶62 *et seq.*

²³ Itron sees no need to apply a different standard to incumbents authorized to serve broad areas on a secondary basis, as is the case with Itron's nationwide 1427-1432 MHz license. See *id.* at ¶63. Itron is prepared to file site-by-site applications for those areas it seeks to upgrade to primary status.

²⁴ See *Joint Proposal* at 2-3. It should be noted that the flip areas identified in the *NRPM* do not reflect the most current list that has been provided to the Commission. See *AHA November Ex Parte* (adding areas to Greater Washington, DC, Greater Richmond and Norfolk, VA, Detroit, MI, and Spokane, WA markets).

²⁵ See *NRPM* at ¶51.

E. Frequency Coordination

Itron supports the Commission's proposal to follow traditional coordination requirements for telemetry systems in the 1427-1429.5 MHz band.²⁶ Under these procedures, telemetry applicants would be required to show prior frequency coordination with a frequency coordinator pursuant to Section 90.175 of the Commission's Rules.²⁷ Frequency coordination under Part 90 procedures has a proven record of success, will expedite the application process, and is necessary to prevent applicants from seeking frequencies in locations where they are unavailable. Frequency coordinators for telemetry services also should be directed by the Commission to exchange information and coordinate closely with the WMTS frequency clearinghouse.

F. Channelization and Channel Limits

As the Commission recognizes in the *NPRM*, "Part 90 services generally employ a variety of channel bandwidths."²⁸ The same can be said of telemetry systems. Instead of setting hard and fast parameters for channel bandwidths, therefore, the Commission should maximize flexibility and refrain from imposing a channelization requirement for telemetry licensees.

Itron believes, however, that the Commission should set reasonable limits on the amount of spectrum in the 1427-1432 MHz band that any one applicant should be licensed in a single geographic area (*i.e.*, the area covered by a license that is consistent with the 70 mile separation distance) and should specify the increments in which such spectrum may be sought. Itron proposes that the Commission adopt a limit of 1 MHz of spectrum per user per service area. This limit will help ensure that spectrum is available to those that need it; in particular to the multiple utilities – electric, gas, and

²⁶ See *id.* at ¶64 *et seq.*

²⁷ See *id.* at ¶65.

²⁸ *Id.* at ¶69.

water - that may choose to operate utility telemetry systems in their areas. In the interest of simplicity, Itron further suggests that the spectrum be assigned in minimum increments of 250 kHz.

G. Service Rules For Secondary Operations

Itron and AHA have proposed that WMTS be permitted to operate on a secondary basis in the upper half of the 1427-1432 MHz band, where telemetry is primary, and that telemetry be permitted to operate on a secondary basis in the lower half of the band, where WMTS is primary.²⁹ Itron and AHA also proposed technical rules that would apply to these secondary operations.

Itron urges the Commission to adopt this element of the Itron/ AHA proposal. In so doing, the Commission should make clear that licensees will be subject to their own service rules when operating on a secondary basis. Thus, for example, a telemetry licensee operating on a secondary basis in the 1427-1429.5 MHz band would be subject to telemetry service rules, not WMTS, service rules. Similarly, in the 1429.5-1432 MHz band, WMTS operations on a secondary basis would be governed by WMTS service rules, not telemetry service rules.

H. Mobile Operations in the 1429.5-1432 MHz Band

In the *NPRM*, the Commission has proposed to allocate the 1429.5-1432 MHz band “to fixed and mobile telemetry.”³⁰ Insofar as “mobile telemetry” is concerned, Itron believes that certain limitations are needed to protect WMTS in the adjacent band. In particular, and in order to narrow the universe of mobile users, Itron suggests that the Commission confine mobile authority to those entities holding a fixed telemetry license for the band. No applications for “mobile only” authority should be permitted.

²⁹ See *Joint Proposal*.

³⁰ *NPRM* at ¶53.

In addition, and as a further protection for WMTS, the Commission should adopt the power limits for mobile operations that Itron and AHA have recommended.³¹

III. Fixed Telemetry in the 216-220 MHz Band

Itron supports Data Flow's proposed amendments to Section 90.35 and 90.259 of the Commission's Rules.³² As Section 90.35 currently reads, it arguably precludes fixed telemetry operations in the 216-220 MHz band. There is no basis for prohibiting fixed telemetry in a band in which mobile telemetry is permitted, and Itron urges the Commission to correct this anomaly.

³¹ See *AHA December Ex Parte* ("utility telemetry mobiles would be further limited to 25 milliwatts in the 500 kHz band immediately adjacent to WMTS (that is, at 1429.5-1430 MHz) and at the agreed upon levels for fixed operations in the utility telemetry bands more than 500 kHz away from WMTS-primary spectrum (for example, 1 watt from 1430-1430.5 MHz). The same graduated power limits for utility telemetry mobiles (that is, 25 mW in the 500 kHz nearest WMTS spectrum) also would apply in the geographic areas subject to the proposed band flip (that is, the seven geographic areas identified in proposed footnote US 350 in the attachment to the AHA's November 2, 2001, *ex parte* submission) where WMTS would be primary in the 1429-1431.5 MHz band)).

³² See *NPRM at ¶¶45-46*.

CONCLUSION

Itron commends the Commission's continued efforts to allocate the former governmental bands to private use. For the reasons stated herein, Itron asks that the Commission adopt the rules proposed in the *NPRM*, with the modifications proposed in these comments.

Respectfully submitted,

ITRON, INC.

A handwritten signature in black ink that reads "Henry Goldberg". The signature is written in a cursive, flowing style.

Henry Goldberg
Joseph A. Godles
Eric J. Schwalb

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March 4, 2002

EXHIBIT A

**JOINT STATEMENT OF POSITION BY THE
AMERICAN HOSPITAL ASSOCIATION
TASK FORCE ON MEDICAL TELEMETRY AND ITRON, INC.**

- I. This Joint Statement of Position expresses the intent of the undersigned parties to adopt a sharing plan for the assignment of licenses in the 1427-1432 MHz band, to present the plan to the Federal Communications Commission (“FCC”) , to propose the adoption of this band sharing plan and its codification into regulations by the FCC in ET Docket No. 00-221, and to take additional actions in furtherance of such plan.
- II. The parties to this Joint Statement of position are the American Hospital Association Task Force on Medical Telemetry (“AHA Task Force”) acting in the interests of users and manufacturers of medical telemetry devices and systems and Itron, Inc. (“Itron”) acting in the interests of users and manufacturers of utility telemetering devices and networks in the electric, gas, and water utility industries.
- III. Itron and several electric and gas utilities presently hold licenses to operate on a secondary basis in the 1427-1432 MHz band to provide utility telemetry, including automated meter reading (“AMR”). The FCC has allocated the 1429-1432 MHz band on a primary basis to the Wireless Medical Telemetry Service (“WMTS”).
- IV. The FCC has issued a Notice of Proposed Rulemaking in ET Docket No. 00-221 (the “NPRM”) seeking comment on alternative allocation proposals for the 1427-1432 MHz band. The parties have determined that it serves the parties whose interests they represent for the FCC to allocate the 1427-1432 MHz band exclusively for “Utility Telemetry”, being AMR and other utility industry telemetry use on the one hand, and for WMTS use, on the other, with priority of use and technical characteristics set forth below. Therefore:
 - A. The parties agree that each will propose in its filings regarding the NPRM, and cooperate to support during the course of the proceeding in Docket 00-221, that the 1427-1432 MHz band will be allocated to WMTS and Utility Telemetry on a co-primary basis *vis-à-vis* other uses. The parties further will propose that the FCC codify into the FCC rules the Frequency Management Plan, setting forth the primary and secondary status of WMTS and Utility Telemetry *vis-à-vis* one another throughout the United States, and the technical characteristics that will govern such use, all as set forth below.

B. Frequency Management Plan:

1. Except as set out in subsection B.3. below, licensees for Utility Telemetry will have primary status in 1429.5-1432 MHz (“Utility Band”). Licensees for WMTS may operate in this band only on a secondary, non-interference basis to Utility Telemetry.
2. Except as set out in subsection B.3. below, licensees for WMTS will have primary status in 1427-1429.5 MHz (“WMTS Band”). Licensees for Utility Telemetry may operate in this band only on a secondary, non-interference basis to WMTS.
3. Notwithstanding the frequency designations set out above, in the following geographic areas (“Utility Defined Areas”), in each of which Utility Telemetry have systems operating on or before February 1, 2001, the Utility Band will be the bands 1427-1429 MHz and 1431.5-1432 MHz and the WMTS band will be the band 1429-1431.5 MHz:
 - a. Areas in which Utility Telemetry systems will continue to use the 1427-1429 band indefinitely:
 - i. Pittsburgh, Pennsylvania market (Westmoreland, Washington, Beaver, Allegheny, and Butler counties)
 - ii. Springfield, Virginia market (Montgomery, Prince William, Fairfax, Prince George’s, and Charles counties, Alexandria City, District of Columbia)
 - iii. Richmond, Virginia market (Goochland, Powhatan, Hanover, and Henrico counties, Richmond City)
 - iv. Norfolk, Virginia market (Hampton City, Virginia Beach City, Chesapeake City, Portsmouth City, and Suffolk City)
 - v. Austin and Georgetown, Texas market (Williamson and Travis counties)
 - vi. Battle Creek, Michigan market (Calhoun County)
 - vii. Detroit, Michigan market (Oakland county)
 - viii. Spokane, Washington market (Spokane county)

b. Areas in which Utility Telemetry Systems will continue to use the 1427-1429 band on a primary basis until February 1, 2006. Such systems may not expand outside of the designated areas or add channels or frequencies. During this period, licensees for WMTS may operate in this band on a secondary, non-interference basis to such Utility Telemetry Systems, subject to the provisions described in subsection B.4 below. After February 1, 2006, such Utility Telemetry Systems shall be treated as secondary users in the WMTS Band, subject to the provisions described in subsection B.4 below, and WMTS licensees shall be treated as primary:¹

i. Baltimore, MD.

Base Station A located at 39.308731N, -76.564498W, 139' above the ground, with 1 watt EIRP; service area #1 is a one mile radius centered around 39.2934N -76.5756W; service area #2 is a one mile radius centered around 39.3268N -76.5497W.

Base Station B located at 39.336944N -76.733333W, 284' above the ground, with 1 watt EIRP; service area is a one a one mile radius centered around 39.2969N -76.7391W.

ii. Santa Ana, CA.

Base Station located at 33.706669N - 117.789068W, 125' above the ground, with 1 watt EIRP; service area is a one mile radius centered around 33.69187N - 117.78234W.

iii. Long Island, N.Y.

Base Station located at 40.608778N - 73.762433W, 150' above the ground with 1 watt EIRP, service area is a one mile radius centered around 40.60249N - 73.76198W.

4. Co-channel use of the Utility Band by WMTS Licensees and co-channel use of the WMTS Band by Utility Telemetry Licensees will be permitted on a secondary, non-interference basis to any existing or future primary licensee of that band, as follows:

- a. The co-channel users must be located at a sufficient distance apart to maintain a field strength of $< 150\mu\text{V}/\text{m}$, H and V,

¹ Within 90 days of the date of execution of this joint statement of position, Itron will provide a list of the exact frequencies used in these Utility Telemetry Systems.

measured over any 1 MHz with an averaging detector as measured at the interfered site.

- b. In the event of any dispute between the primary and secondary users, such dispute shall be resolved by reference to an industry-standard propagation study conducted at the expense of the secondary user and approved by the frequency coordinator/manager specified in Section III.C. below.

- 5. The maximum transmitter output power for Utility Telemetry shall be no greater than 1 watt EIRP in the 1429.5-1430.5 MHz band, no greater than 10 watts EIRP in the 1430.5-1431.5 MHz band, and no greater than 100 watts EIRP in the 1431.5-1432 MHz band, *provided, however*, that in the Utility Defined Areas set out above, the maximum transmitter output power for Utility Telemetry shall be no greater than 100 watts EIRP in the 1427-1428 MHz band, 10 watts in the 1428- 1428.5 band, 1 watt in the 1428.5-1429 MHz band, and 10 watts in the 1431.5-1432 MHz band. The maximum transmitter output power (expressed in field strength) for WMTS shall be not greater than those limits specified in Part 95 of the FCC rules 740mV/m at 3 meters over 1 MHz (160mW EIRP). The maximum level of “out-of-band” emissions between Utility Telemetry use and WMTS use and between WMTS use and Utility Telemetry use shall be no greater than 150uV/m, H and V, measured over any 1 MHz with an averaging detector as measured at the interference site.

C .In accordance with the Frequency Management Plan set forth in Section B above, specific assignments in the Utility Band will be subject to prior frequency coordination by the designated Utility Telemetry frequency coordinator. Registration of licensed WMTS users in the WMTS Band into the frequency coordination database for the WMTS will be implemented through the American Society of Health Care Engineers (“ASHCE”). Secondary uses of the bands must be coordinated/registered with the appropriate frequency coordinator/manager prior to installation and operation. The parties shall urge the Commission to require ASHCE and the utility coordinator to provide access to each others data bases and to encourage communication and cooperation between them in carrying out their duties.

D. The parties agree to cooperate in proposing this band plan to the FCC and to take such additional actions as may be reasonably necessary in connection with seeking FCC adoption and codification of the band plan and frequency management plan described above, and to take such other action as shall not

prejudice either party's ability to retain the primary rights to at least 2.5 MHz of spectrum in the 1427-1432 MHz band. Neither party will seek to implement other sharing of these channels with users and for uses not contemplated in this joint statement of position, without discussing it with the other party and giving such party the opportunity to participate fully in such discussions. . The parties agree to negotiate in good faith concerning any additional terms that may be required to implement the understandings in this joint statement of position.

E. This joint statement of position may be executed in multiple counterparts. Each counterpart shall be deemed an original, and collectively the counterparts shall constitute a single instrument

IN WITNESS WHEREOF, the parties have executed this joint statement of position as of this 8th day of March, 2001.

Itron, Inc.

American Hospital Association
Task Force on Medical Telemetry

By: /s/ Russ Fairbanks
Russ Fairbanks
Vice President & General Counsel

By: /s/ Mary Beth Savary Taylor
Mary Beth Savary Taylor
Director
Executive Branch Relations

EXHIBIT B

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November 2, 2001

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W., Room A325
Washington, D.C. 20554

Re: *Ex Parte Presentation,
American Hospital Association Task Force
on Medical Telemetry,
ET Docket No. 00-221*

Dear Ms. Salas:

This letter serves as notification that on November 1, 2001, the following representatives of the American Hospital Association Task Force on Medical Telemetry ("AHA Task Force"), Mary Beth Savary Taylor, Director, Executive Branch Relations, American Hospital Association; Caroline A. Campbell, Director of Biomedical Engineering at the Washington Hospital Center; and Larry Movshin and Tim Cooney of Wilkinson Barker Knauer, LLP, in separate meetings met with Commissioner Kathleen Q. Abernathy and her Senior Legal Advisor Bryan Tramont and with Commissioner Kevin J. Martin and Robert Swanson of his staff.

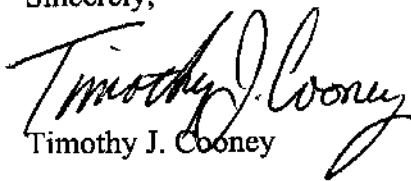
The AHA Task Force representatives urged the Commission to reaffirm the allocation of 3 MHz (or its equivalent) of spectrum in the 1427-1432 MHz band to the Wireless Medical Telemetry Service, preferably at the lower end of the band with utility telemetry as its neighbor at the upper end of the band, as discussed in the one-page attachment. Additionally, we distributed the attached draft of what the Table of Allocations and footnotes under Part 2 of the Commission's Rules would like if the Commission (as the AHA Task Force proposes the Commission should do) adopts the AHA-Itron band allocation plan, including the proposed geographic band shift to protect incumbent utility telemetry operations, into the Commission's rules.

WILKINSON) BARKER) KNAUER) LLP

Ms. Magalie Roman Salas
November 2, 2001
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Please contact the undersigned if you have any questions.

Sincerely,


Timothy J. Cooney

cc: Commissioner Kathleen Q. Abernathy (w/encl.) (via e-mail and fax)
Commissioner Kevin J. Martin (w/encl.) (via e-mail and fax)
Bryan Tramont (w/encl.) (via e-mail and fax)
Robert Swanson (w/encl.) (via fax)

**AMERICAN HOSPITAL ASSOCIATION
TASK FORCE ON MEDICAL TELEMETRY ("AHA")
EX PARTE PRESENTATION IN ET DOCKET NO. 00-221
NOVEMBER 1, 2001**

- The FCC created the Wireless Medical Telemetry Service ("WMTS") in 2000 because of the demonstrated need to protect patient-critical medical telemetry devices from harmful interference. 3 MHz of the 14 MHz allocated to WMTS on a primary basis is at 1429-1432 MHz. The need for WMTS spectrum has not abated, and the FCC must now reaffirm the allocation of spectrum for WMTS in the 1427-1432 MHz band.
- The medical community (represented by AHA) and the utility telemetry ("UT") community (represented by Itron, Inc.) jointly developed an allocation plan for the 1427-1432 MHz band by which WMTS is generally the primary radio service in the 1427-1429.5 MHz band and UT is generally the primary radio service in the 1429.5-1432 MHz band. These two services would not share the same spectrum on a primary basis in any geographic area. Under this plan, WMTS will be able to satisfy its anticipated needs using 2.5 MHz of spectrum rather than the 3 MHz initially allocated, because the neighboring radio services (passive radioastronomy below 1427 MHz and UT above 1429.5 MHz) are designed in a manner that is more compatible with WMTS technical characteristics.
- In making the allocation decisions regarding the 1427-1432 MHz band in this docket, the FCC should focus on three key elements:
 - **Assure compatible neighbors for WMTS.** Having a compatible neighboring radio service like Utility Telemetry is **critical** to the WMTS's ability to reduce the amount of its primary allocation from 3 MHz to 2.5 MHz because (1) the two services anticipate compatible technical specifications that allow for efficient operation by each radio service in a smaller allocation and (2) relatively few UT systems are likely to be operating in a particular market, allowing for quick identification and resolution of any potential interference to a WMTS-equipped medical facility.
 - **Adopt All Key Elements of AHA-Itron Proposal.** The Commission must incorporate as much as possible of the band allocation plan developed by AHA-Itron into the FCC rules; in particular, since the parties have agreed to a "band-flip" to accommodate existing UT systems in the lower 2.5 MHz, it is essential that the rules expressly identify those few geographic areas in which the primary allocations in the 1427-1432 MHz band are "flipped" on a permanent basis. Without such a rule, WMTS operations may be effectively precluded in the 1.4 GHz band in several significant geographic areas or existing UT systems will have to migrate quickly out of the newly allocated WMTS spectrum. Neither situation would serve the public interest.
 - **Reconfirm Commitment to WMTS.** Since a separate proceeding is expected in which service rules for these services will be adopted, the FCC should reconfirm its commitment to protect WMTS licensees from harmful co-channel and adjacent channel operations when it proposes and adopts technical rules, such as power levels for UT or other neighboring radio services. Unless restrictions such as those included in the AHA-Itron proposal are adopted, WMTS cannot meet its anticipated requirements in less than 3 MHz of spectrum in the 1427-1432 MHz band.

EX PARTE SUBMISSION
ET DOCKET NO. 00-221

PROPOSED TABLE OF ALLOCATIONS AND FOOTNOTES
TO IMPLEMENT BAND ALLOCATION PLAN FOR 1427-1432 MHz

JOINTLY DEVELOPED BY

AMERICAN HOSPITAL ASSOCIATION TASK FORCE ON
MEDICAL TELEMETRY AND ITRON, INC.

November 1, 2001

1427-1432 MHz*

International Table			United States Table		FCC Rules Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
1427-1429 SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile			1427-1429 SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile	1427-1429 LAND MOBILE (LIMITED TO WMTS TELEMETRY AND TELECOMMAND) Fixed [and mobile] (limited to utility telemetry/telecommand) S5.341 US350	PERSONAL (WMTS) (95) Fixed Microwave (101)
S5.341			S5.341 G30		
1429-1452 FIXED MOBILE except aeronautical mobile	1429-1452 FIXED MOBILE S5.343		1429-1432 LAND MOBILE US350	1429-1429.5 LAND MOBILE (LIMITED TO WMTS TELEMETRY AND TELECOMMAND) Fixed [and mobile] (limited to utility telemetry/telecommand) S5.341 US350	PERSONAL (WMTS) (95) Fixed Microwave (101)
S5.341 S5.342	S5.341		S5.341 US352	1429.5-1432 FIXED [AND MOBILE] (LIMITED TO UTILITY TELEMETRY/TELECOMMAND) Land mobile (WMTS telemetry and telecommand) S5.341 US350 US352	FIXED MICROWAVE (101) Personal (95)

* KEY: PRIMARY SERVICE is typed in all caps; Secondary service is typed in initial caps; Revised Material is typed in bold.

US FOOTNOTES

US 350

In the bands 608-614 MHz and 1395-1400 MHz, the land mobile service is limited to medical telemetry and telecommand operations. In the band 1427-1432 MHz, operations are limited to medical telemetry and telecommand and to utility telemetry/telecommand operations. Except in the geographic areas listed below, medical telemetry and telecommand is the primary radio service in the band 1427-1429.5 MHz, and utility telemetry/telecommand is the primary radio service in the 1429.5-1432 MHz band. In the areas listed below, medical telemetry and telecommand is the primary radio service in the band 1429-1431.5 MHz, and utility telemetry/telecommand is the primary radio service in the bands 1427-1429 MHz and 1431.5-1432 MHz.

Market	Areas	Market	Areas
Pittsburgh, Pennsylvania	Westmoreland, Washington, Beaver, Allegheny, and Butler Counties	Austin and Georgetown, Texas	Williamson and Travis Counties
Greater Washington, D.C.	District of Columbia; Montgomery, Prince Georges, and Charles Counties, MD; Alexandria City, Falls Church City, Fairfax City, Arlington, Prince William, Fauquier, Loudon and Fairfax Counties, VA	Battle Creek, Michigan	Calhoun County

Market	Areas	Market	Areas
Greater Richmond and Norfolk, Virginia	Virginia Counties: Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Henrico, Isle of Wight, James City, New Kent, Powhatan, Prince George, Southhampton, Surrey, Sussex and York; Virginia Cities: Chesapeake, Colonial Heights, Franklin, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach, and Williamsburg	Detroit, Michigan	Oakland, Wayne, Washtenaw, Macomb and Livingston
		Spokane, Washington	Spokane County, WA Kootenai County, ID

In the 1427-1429.5 MHz band, medical telemetry and telecommand is primary and utility telemetry/telecommand is secondary, except that until February 1, 2006, medical telemetry and

telecommand must operate on a non-interference basis to existing channels of incumbent utility telemetry/telecommand operations listed below, which are primary through February 1, 2006.

Market	Areas
Baltimore, MD	<p>Base Station A located at 39.308731N-76.564498W, 139' above the ground, with 1 watt EIRP:</p> <p>Service area #1 is a one mile radius centered around 39.2934N-76.5756W;</p> <p>Service area #2 is a one mile radius centered around 39.3268N-76.5497W.</p> <p>Base Station B located at 39.336944N-76.733333W, 284' above the ground, with 1 watt EIRP:</p> <p>Service area #2 is a one mile radius centered around 39.2969N-76.7391W.</p>
Santa Ana, CA	<p>Base Station located at 33.706669N-117.789068W, 125' above the ground, with 1 watt EIRP:</p> <p>Service area is a one mile radius centered around 33.69187N-117.78234W.</p>
Long Island, NY	<p>Base Station located at 40.608778N-73.62433W, 150' above the ground, with 1 watt EIRP:</p> <p>Service area is a one mile radius centered around 40.60249N-73.76198W.</p>

US 352

In the band 1429-1432 MHz, Government operations, except for medical telemetry operations as described below, are on a non-interference basis to authorized non-Government operations and should not hinder the implementation of any non-Government operations. However, Government operations authorized as of March 22, 1995 at 14 sites identified below will be continued on a fully protected basis until January 1, 2004. Additionally, Government medical telemetry operations are subject to US 350.

Sites	Lat/Long	Radius (km)
Patuxent River, MD	38°17'N/076°25'W	70
NAS Oceana, VA	36°49'N/076°02'W	100
MCAS Cherry Point, NC	34°54'N/076°52'W	100
Beaufort MCAS, SC	32°26'N/080°40'W	160
NAS Cecil Field, FL	30°13'N/081°52'W	160
NAS Whidbey IS., WA	48°19'N/122°24'W	70
Yakima Firing Ctr AAF, WA	46°40'N/120°15'W	70
Mountain Home AFB, ID	43°01'N/115°50'W	160
NAS Fallon, NV	39°24'N/118°43'W	100
Nellis AFB, NV	36°14'N/115°02'W	100
NAS Lemoore, CA	36°18'N/119°47'W	120
Yuma MCAS, AZ	32°39'N/114°35'W	160
China Lake, CA	35°29'N/117°16'W	80
MCAS Twenty Nine Palms, CA	34°15'N/116°03'W	80

EXHIBIT C

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December 19, 2001

VIA ELECTRONIC FILING

Magalie Roman Salas
Secretary
Federal Communications Commission
445 - 12th Street, S.W.
Room TW-A325
Washington, D.C. 20554

Re: *Ex Parte Presentation*
American Hospital Association Task Force
On Medical Telemetry
ET Docket No. 00-221

Dear Ms. Salas:

This letter is filed on behalf of the American Hospital Association Task Force on Medical Telemetry ("AHA") pursuant to Section 1.1204(a)(10) of the Commission's rules. It serves as notification that on Monday, December 17, 2001, the AHA's undersigned counsel responded to a request from the office of Commissioner Kevin H. Martin for clarification of the AHA's written position in ET Docket No. 00-221, a rulemaking proceeding that will affect the allocation to the Wireless Medical Telemetry Service ("WMTS") in the 1.4 GHz band.

The new information provided by AHA in the clarification is that the AHA and Itron (representing the interests of utility telemetry users) had tentatively agreed that utility telemetry users operating mobiles in the 1429.5 - 1432 MHz band under the very restricted power limits described below would not typically cause harmful interference to WMTS in the proposed adjacent band (1427-1429.5 MHz) that would serve as the WMTS-primary allocation in the 1427-1432 MHz band. The AHA-Itron band allocation plan (filed with each party's initial comments) proposed that the power limits for utility telemetry *fixed* operations would be no greater than (a) 1 watt EIRP from 1429.5-1430.5 MHz, (b) 10 watts EIRP in the 1430.5-1431.5 MHz band; and (c) 100 watts EIRP in the 1431.5-1432 MHz band furthest from WMTS. The tentative AHA-Itron agreement on mobiles (that had not been filed with the Commission),

Magalie Roman Salas
December 19, 2001
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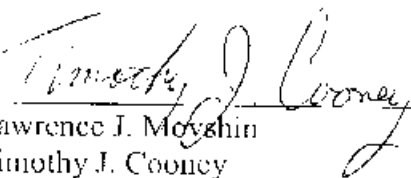
however, anticipated that utility telemetry mobiles would be further limited to 25 milliwatts in the 500 kHz band immediately adjacent to WMTS (that is, at 1429.5-1430 MHz) and at the agreed upon levels for fixed operations in the utility telemetry bands more than 500 kHz away from WMTS-primary spectrum (for example, 1 watt from 1430-1430.5 MHz). The same graduated power limits for utility telemetry mobiles (that is, 25 mW in the 500 kHz nearest WMTS spectrum) also would apply in the geographic areas subject to the proposed band flip (that is, the seven geographic areas identified in proposed footnote US 350 in the attachment to the AHA's November 2, 2001, *ex parte* submission) where WMTS would be primary in the 1429-1431.5 MHz band).

Please contact the undersigned if you have any questions.

Sincerely,

WILKINSON BARKER KNAUER, LLP

By:


Lawrence J. Moyshin
Timothy J. Cooney

cc: Peter Tenhula
Monica Desai
Bryan Tramont
Paul Margie
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